

**CROUSE-HINDS<sup>®</sup>  
FLEXITITE<sup>™</sup>  
PUSH-BUTTON  
STATIONS**



# CROUSE-HINDS™ FLEXITITE™ PUSH-BUTTON STATIONS

One and Two Speed 2,4,6 and 8 Buttons  
Meet OSHA Requirements

*Crouse-Hinds Flexitite Pendant Push-Button Stations are steel reinforced, molded neoprene units designed for safer, low maintenance control of overhead cranes and hoists. They are available in two, four, six and eight buttons; single- and two-speeds; A.C. or D.C.*

**Safety Insulated** — Meets OSHA requirements for enclosing live parts. Entire unit, except strain relief tap is insulated with neoprene. Reinforcing plates can be grounded by connection to grounding screw inside front cover.

**Safety Cushioned** — Meets OSHA requirements for preventing enclosure deformation. Resilient neoprene construction protects internal switches and connectors from accidental damage caused by impact. Neoprene construction also gives extra protection to personnel from injuries caused by swinging pendants. Gives similar cushioned protection against damage to goods or equipment.

**Sealed enclosure** — Meets OSHA requirements for protection from dirt, grease, oil and moisture. Enclosures are designed to meet the requirements of NEMA 1 General Purpose, NEMA 3 Weatherproof, NEMA 4 Watertight, NEMA 5 Dust Tight, NEMA 12 Oil Tight.

**Maintained Off-On Toggle Switch** — For OSHA required electrical disconnect at the pendant. Maintained off-on toggle switch enables control of power to the crane without adding special holding coils to your controller. Available on the 4, 6 and 8 button units only.

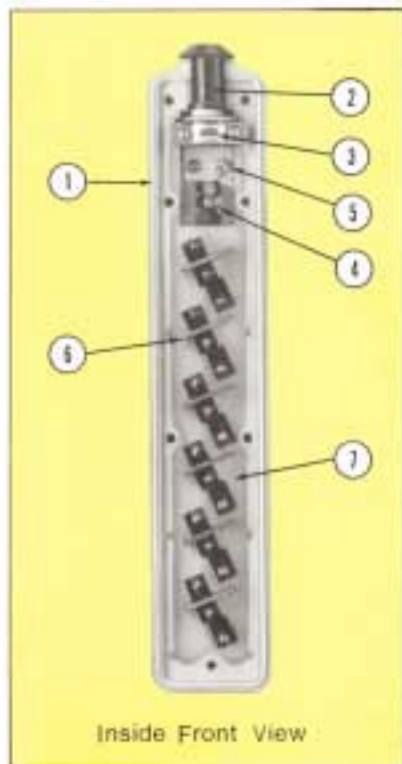
**Stress Relief** — Meets OSHA requirements for supporting pendants so as to protect Electrical Conductors against strain. Unique design features steel reinforced enclosure with built in cable clamp and strain relief tab.

**Indicator Plates** — Meets OSHA requirements for clear marking (identification) of functions. A series of easy to read legend plates are supplied with each pendant.

**Jam Resistant** — Operator buttons are raised flexible diaphragms and part of one-piece molded cover. There are no buttons for foreign matter to work around and jam.

**Long Life Switches** — Positive action, momentary contact switches are entirely enclosed and cradled in resilient neoprene. Switch units can be wired to electrically interlock opposing operations. A schematic is furnished with each unit.

**Easy Operation** — Compact 3" x 3" enclosure fits hand easily.



1. **BODY SEAL** — Compresses against mating half to form a positive seal.
2. **REDUCING GROMMETS** — Permit use of five different cable sizes while sealing cable entrance.
3. **CABLE CLAMP** — Secures conductors inside switch. Transfers strain to inner steel core of switch. (Not used with pilot light.)
4. **TOGGLE SWITCH (OPTIONAL)** — Maintained off-on switch to control power to pendant stations.
5. **GREEN GROUNDING SCREW** — Makes positive contact between inner steel core and ground wire.
6. **INSULATION BARRIERS** — On 4- and 6-button models. Position switches and separate N/O and N/C switch contacts for added safety.
7. **SEPARATOR** — For 4- and 6-button models. Tough polypropylene sheet retains switches and forms an insulated wiring channel.
8. **STRAIN RELIEF** — Integral part of the inner steel core — provides tie-off point for strain chain to relieve tension from electrical cable.
9. **ELECTRICAL INTERLOCK** — Schematic furnished to wire switches against opposed operations.
10. **LOW COST, EASILY INSTALLED** — Despite their many advantages, Joy pendant stations generally cost less than similar metal units.
11. **RAISED BUMPER** — protects lens against damage caused by impact.

**Note:**  
A cable grip is used with pilot light option, and is included with kit.



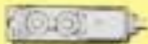
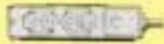
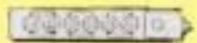

## New Feature

Heavy-duty pilot light now available! (optional)

- 125 V AC or 250 V AC
- Oiltight (NEMA 12)
- Neon bulb with red lens



## Ordering Procedure

Style	Toggle Switch *	1 Speed 20A 460V 2 hp. 230V	2 Speed 10A 230V 1/2 hp. 230V	DC 10A 125V 1/8 hp. 125V	Cable Diameter	Shipping Weight (lbs.)	Dimensions		
							Length	Width	Depth
2-Button 	None	X8635-21	X8635-22	X8635-20	.555 thru .665	2 1/2	8 1/4"	2 1/4"	3"
4-Button 	3316317	X8635-41B	X8635-42B	X8635-40B	.505 thru .730	3	13 1/4"	3"	3 1/4"
6-Button 	3316317	X8635-61B	X8635-62B	X8635-60B	.590 thru .840	6 1/2	17"	3"	3 1/4"
8-Button 	3316317	X8635-81	X8635-82*	X8635-80	.698 thru .968	9	21 1/2"	3"	3 1/4"

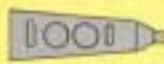
\*Should be ordered separately.

### Pilot Light Kit for 4, 6 and 8-Button Only

Lamp Voltage	4 and 6 Button Cable Diameter			8 Button
	.50 thru .62	.63 thru .74	.75 thru .87	.69 thru .97
110-125V AC	3316533	3316533-1	3316533-2	3316624
210-250V AC	3316534	3316534-1	3316534-2	3316625

Pilot light kit includes: lamp assembly with lens and bulb, cable support grip, and "S" hook. Support grip and "S" hook not required on 8 button.

### New Flexitite™ 2-Button Attachable Pendant Switch

Part Number	Contact Style	Voltage	Amps Make	Amps Break
X8995-1 yellow 	Momentary Switch	240 AC 120 AC 24 AC 250 VDC 125 VDC	7.5 15.0 15.0 0.27 0.55	0.75 1.5 2.5 0.27 0.55

\*2 speed includes: 6, 2-speed switches and 2, single speed switches.

## Replacement Parts

Style	Part Numbers			Switch Element Part Numbers				Barrier	Separator	Parts KIT†	Pilot Light Kit
	Front Cover	Back Cover	Toggle Switch Kit	1 Speed 20a. 460V 2hp. 230V	2 Speed 10a. 230V 1/2hp. 230V	DC 10a. 125V 1/8hp. 125V	Toggle On/Off Element				
2-Button	A335578	A335577-1	Not Available	3316480	314896	314903				RX8635-21	See Above Chart
4-Button	3335848-1	3335829-1	3316317	3316480	314896	314903	1316313	314849-1 (4 Req'd)	335616 (1 Req'd)	RX8635-41	
6-Button	3335845-1	3335830-1	3316317	3316480	314896	314903	1316313	314849-1 (6 Req'd)	335571 (1 Req'd)	RX8635-61	
8-Button	3344153	3344154	3316317	1316620	314896	314903	1316313	Not Req'd	Not Req'd	RX8635-80	

† Toggle Switch Kit — Includes: Toggle Switch, Guard, Assembly & Screws.

†† Parts Kit — Includes Cable Grommets, Legend Plates and Assembly Screws.

## Indicator Plates

2-Button				4, 6 and 8-Button			
Part Number	Description	Part Number	Description	Part Number	Description	Part Number	Description
315116-1	Down/West	315116-7	Rev/Left	314850-1	Bridge	314850-6	Fwd/Rev. North/South
315116-2	Start/North	315116-8	Up/East	314850-2	Trolley		On/Off Start/Stop
315116-3	Stop/South	315116-9	Raise/Lower	314850-3	Hoist	314850-9	
315116-4	Off/In	315116-10	Up/Down	314850-4	In/Out	314850-12	Raise/Lower
315116-5	On/Out	315116-11	Right/Left		Up/Down	314850-13	Inbd/Outbd
315116-6	Fwd/Right			314850-5	Right/Left East/West	314850-14	Off/On

Shoulder Bolts For Fastening Front To Back Cover —  
2-Button (P/N 1316311-2); 4- & 6-Button (P/N 1316311-1)

NOTE: Refer to price list for identification of stock items.



# Multi-Speed 6-and 8-Button

## Meets Same OSHA Requirements as One and Two Speed Push-Button Stations

Cam actuated switch modules offer up to five speeds at any button . . . controlled by button pressure. Switch elements are rated 15 amps at 250 V AC or 6 amps at 30 V DC. Nylon mechanical interlocks prevent actuation of opposing functions. Modules nest on cushions in steel reinforced one-piece neoprene cover.

### Easy to Wire

Terminal block connections and wide wiring channels facilitate wiring of pendants . . . permit fast, easy installation of components. The cable entrance accommodates cables up to 1.050" diameter and each unit is supplied with grommets which adapt to cable as small as .680". A complete set of plastic "snap-in" legends for almost any use is included.



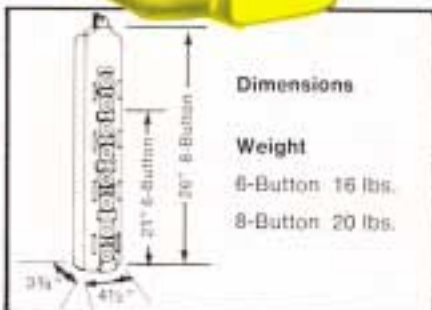
Note: Red Button is supplied for marking stop function on pendant.

### Ordering Procedure

The units are pre-packaged complete less switches.

- A. First, select proper part number for either 6- or 8-button enclosure.
- B. Second, select switch modules required (select 3 modules for 6-button; select 4 modules for 8-button).

**Note:** Enclosure includes front and back cover, hardware, grommets, and complete set of indicator plates (legends).



(A) Enclosure	Part Number	Replacement Legends	
		Description	Part Number
6-Button Enclosure	3335762-1	Bridge	314850-1
8-Button Enclosure	3335757-1	Trolley	314850-2
		Hoist	314850-3
		In/Out	314850-4
		Up/Down	314850-5
		Right/Left	314850-6
		East/West	314850-9
		Fwd/Rev,	314850-12
		North/South	314850-13
		On/Off	314850-14
		Start/Stop	
		Raise/Lower	
		Inbd/Outbd	
		Off/On	
		Maintained On/ Off	
		Maintained Off/ On	
Replacement Parts		6-Button Part Number	8-Button Part Number
	Top Cover	3344129-1	3344126-1
	Back Cover	3344126	3344125
	Hardware Accessory Kit	3316040	3316040
	Toggle Switch	3316317	3316317

NOTE: Refer to price list for identification of stock items.



# Economical Side-Mounted Toggle Hoist Switches



Molded neoprene enclosures. Rugged style provides greater operator safety and resistance to chemical fumes, water, dirt and all other industrial environmental hazards. Up-down legend perma-

nently molded into the side of switch. Rating to 250 volts, 10 amp.; switch permanently wired and molded to cord.

Style	Wiring	Max. Rating		Control	Marking (L to R as Shown)	Cord Length & Type	Part Number
		Volts	Amps				
Toggle Switch 		250 V AC	10 Amp	3-Position Toggle Momentary	Up-Down	6 ft 5" - # 16 3 / C SO	X8451-5




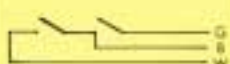


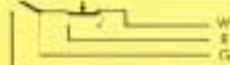

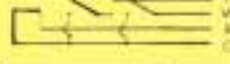
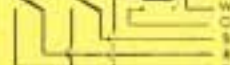
## Molded-To-Cable Pendant Switches

**PRECISION SWITCHES** — The ultimate in push-button control. Countless maintenance-free operations suitable for practically any location. Momentary or maintained contact, single or rocker action switches; thru cable feed designs available on request. Accessory strain collar with "S" hook can be

included as an integral assembly.

**ELECTRICALLY SAFER** — Thick, tough neoprene rubber completely covers switch insulating entire system and is impervious to moisture. Will withstand ordinary abuse and hazards of industry.

## Ordering Procedure

Style	Wiring	Max. Rating		Control	Marking (L to R as Shown)	Cord Length & Type	Part Number
		Volts	Amps				
Single Precision Switch 		460 V AC	15 Amp	1 NO Momentary		6 ft - # 14 2 / C SO	X8416-42
						12 ft - # 14 2 / C SO	X8416-43
						18 ft - # 14 2 / C SO	X8416-44
Twin Precision Switch 		460 V AC	15 Amp	2 NO Momentary	Down-Up	6 ft - # 14 3 / C SO	*X8365-43
						12 ft - # 14 3 / C SO	*X8365-44
Twin Push-Button 		125 V AC	12 Amp	1 NO, 1 NC Momentary	Stop-Run	15 ft - # 14 3 / C SO	X8361-19
							125 V AC
Treble Push-Button 		125 V AC	12 Amp	1 NC, 2 NO Momentary	Stop-Slow-Run	15 ft - # 14 4 / C SO	X8406-1
							125 V AC

Legend: (W) white, (B) black, (G) green, (R) red, (O) orange.



## Mountable Switches

Flexitite™ push-buttons feature one-piece, steel reinforced synthetic rubber design similar to pendant stations. They are ideal for heavy-duty, severe environmental service, yet cost less than many standard heavy-duty units. Both N/O and N/C switches can be stacked or subtracted at each push-button. Select the right combination of switches to fit your exact requirement. A wide range of legends and button operators is furnished with each unit.

### Sealed Enclosure

The steel reinforced molding with complete gasketing of mounting surface provides a positive seal against dust, liquids and vapors, when properly box or surface mounted. Flexitite push-buttons are designed to meet the requirements of NEMA 1 General Purpose, NEMA 3 Weatherproof, NEMA 4 Water-

tight, NEMA 5 Dust-tight and NEMA 12 Oil-tight. Not suitable for hazardous locations.

### Safety Design














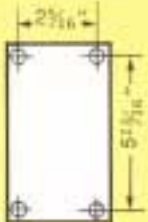





Personnel are insulated from electrical circuits; minimizes shock hazard in plant or outdoors. Large station barriers reduce accidental actuation.

### Low Maintenance

Station switches are designed for countless actuations. Because foreign substances are excluded from the enclosure, frequent switch maintenance is no longer necessary. The specially formulated neoprene face plate operates easily at ambient temperatures from  $-10^{\circ}\text{F}$  to  $180^{\circ}\text{F}$ . Special silicone compound units can operate at even wider ambient ranges.



## Ordering Procedure

Description	Ordering Data				Operator Buttons	Legend Inserts		
 1-Button	NO X8781-110		NC X8781-111		1-Green Flat 1-Red Flat 1-Red Mushroom	Start-On Stop-Off Forward-Up		
 1-Button and Light	NO X8781-10		NC X8781-11		1-Green Flat 1-Red Flat 1-Red Mushroom 1-Red Lens 1-Green Lens	Start-On Stop-Off Forward-Up Reverse-Down		
 2-Button	NO NC X8781-220 *X8781-223		NO NO X8781-221 *X8781-224		NC/NO NC/NO X8781-241		1-Green Flat 1-Red Flat 1-Red Mushroom	Start-On Stop-Off Forward-Up
 2-Button and Light	NO NC X8781-524 With box ( $\frac{3}{4}$ " conduit hub)		NO NC X8781-525 For surface mounting			1-Green Flat 1-Red Flat 1-Red Mushroom 1-Red Lens 1-Green Lens	Start-On Stop-Off Running-On	
 3-Button	NC/NO NC/NO NC X8781-350 With box ( $\frac{3}{4}$ " conduit hub)		NC/NO NC/NO NC X8781-351 For surface mounting			1-Green Flat 1-Red Flat 1-Red Mushroom	Forward-Up Reverse-Down Raise-Close Fast-Start High-Stop Slow-Low Jog-Stop	
 3-Button Door Opener	NO NO NC X8781-352 With box ( $\frac{3}{4}$ " conduit hub)					1-Green Flat 1-Red Flat 1-Red Mushroom	Forward-Up Reverse-Down Raise-Close Fast-Start High-Stop Slow-Low Jog-Stop	

Switch Ratings	AC Voltage	Normal Load Break	Inrush And Int. Capacity	Continuous	DC Voltage	Normal Load Break	Inrush And Int. Capacity	 Individual switch units can be "stacked," as illustrated, on all Flexitite push-button stations to provide any required circuitry.
	110/115	6.0	60	10	115/125	1.1	1.1	
	*125/250	15A	82A/60A	15A				
	220/250	3.0	30	10	230/250	5.5	5.5	
	440/480	1.5	15	10	550/600	20	20	
550/600	1.2	12	10					

NOTES: 1) Lamps supplied with Flexitite switches are rated 125 Volts or 250 Volts.  
 2) 1-Button, 1-Button and Light, and 2-Button, standard FS or FD wiring boxes.  
 \* This voltage applies to P/N X8781-223 and X8781-224.  
 \*\* Not included on P/N X8781-223 and X8781-224.

## Parts and Accessories



Cast aluminum wiring box for 2-Button and light and 3-Button Flexitites.

Corrosion resistant wiring box for 1-Button, and 2-Button Flexitites.

Part No.	Description	Part No.	Description
325457-1	One $\frac{3}{4}$ " Conduit Hub	3316157-1	Two $\frac{1}{2}$ " Knock Outs
325457-2	One 1" Conduit Hub	3316157-2	Two $\frac{3}{4}$ " Knock Outs

Part No.	Description
315,031-1	125 V. Lamp
315,031-2	250 V. Lamp
A314,422-3	Lamp Holder Assembly
A314,999-1	N/O Switch
A314,999-2	N/C Switch
A315,028-2	Red Lens
A315,028-4	Green Lens
RX8781-10	Parts Kit for 1-Button and Light
RX8781-220	Parts Kit for 1- and 2-Button
RX8781-350	Parts Kit for 3-Button
RX8781-352	Parts Kit for X8781-352
RX8781-520	Parts Kit for 2-Button and Light

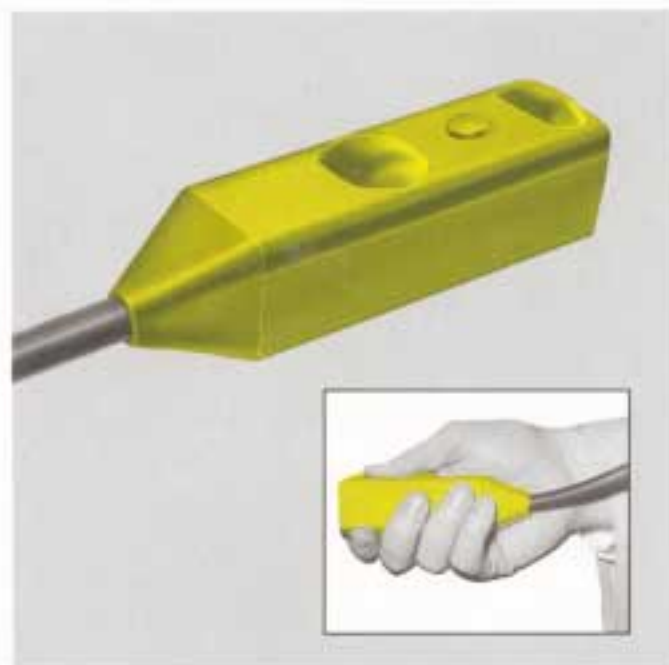
NOTE: Refer to price list for identification of stock items.



# Attachable Pendant Switches

## Pistol Grip

Completely neoprene encased, this switch features an integral handle for easy one-hand operation of small hoists. The replaceable 250 Volt, 15 Amp., Up-Down-Off, toggle switch is available as either maintained or momentary contact. A reinforced eye on the switch cover permits attachment of an external strain chain. The entire assembly is weathertight and corrosion resistant for use anywhere.



## Ordering Procedure

Contact Style	Part Number
Momentary with guard	X8471-9
Maintained with guard	X8471-8

(Applicable Cable Sizes: #14-3/C, #16-3/C 50)

## Small Single Button Switch

Neoprene housing protects both switch unit and operator from electrical and physical hazards. Seals out dust, lint, oils and chemicals. Bright yellow color provides high visibility. Easily assembled with minimum maintenance.

Contact Style	Switch Rating	Cable Size	Part Number
Momentary Switch	20A 480V A.C.	# 16 2/C # 16 3/C	X8932-3
	25A 250V D.C.	# 18 3/C	

NOTE: Refer to price list for identification of stock items.

*Distributed by:*

**For more information:**

If further assistance is required, please contact an authorized Crouse-Hinds Distributor, Crouse-Hinds Sales Office or Crouse-Hinds Customer Service Department.

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